LAKE: PARADISE (MUDDY) P (VLMP 15)
TOWN: DAMARISCOTTA
COUNTY: LINCOLN

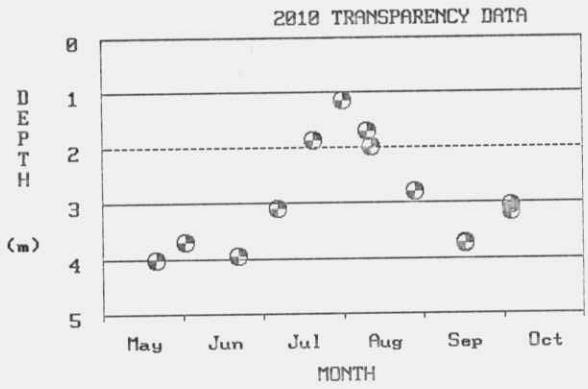
MIDAS: 5708
TRUE BASIN: 1
SAMPLE STATION: 1

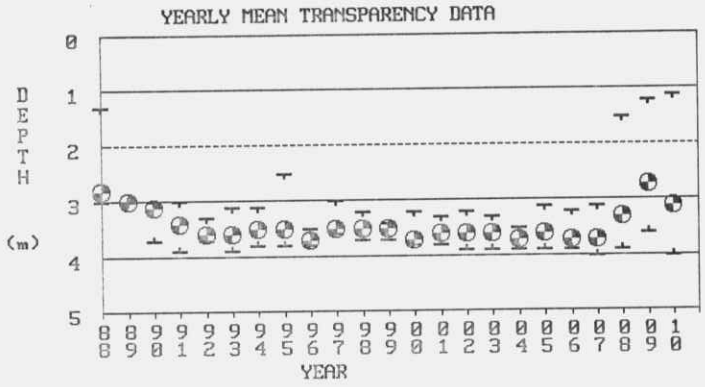
WHOLE LAKE INFORMATION
MAX. DEPTH: 3 m. (11 ft.)
MEAN DEPTH: 2 m. (8 ft.)
DELORME ATLAS #: 07
USGS QUAD: WALDOBORO WEST
IFW REGION B: Belgrade Lakes (Augusta)
IFW FISH. MANAGMENT: Warmwater

TRUE BASIN CHARACTERISTICS
SURFACE AREA: 60.0 ha. (148.3 a.)
FLUSHING RATE: 1.80 flushes/yr.
VOLUME: 1173917.0 cu. m. (952 ac.-ft.)
DIRECT DRAINAGE AREA: 2.84 sq. km. (1.10 sq. mi.)

PLEASE NOTE THE FOLLOWING: The SAMPLE STATION # refers to the location sampled. The term TRUE BASIN is used to define areas within a lake that are separated by shallow reefs or shoals and therefore function as separate lakes. There are approximately 50 lakes in the state that have more than 1 True Basin. True Basin Characteristics are now being included in the first section of these reports to enable users of the Phosphorous Loading Methodology to better evaluate the data. If there is no data for a particular True Basin, True Basin Characteristics must be obtained from the DEP. PARADISE (MUDDY) P has 1 True Basin(s).

SECCHI DISK TRANSPARENCY GRAPHS:





Note: 2010 graphs may indicate multiple readings taken on a given day.

SUMMARY OF CHEMICAL AND TROPHIC STATE PARAMETERS:

[* indicates that Secchi disk was visable at bottom of lake (or one reading used in calculation was visable)].

	MEAN COLOR (SPU)	MEAN pH	MEAN ALK (mg/l)	MEAN COND. (uS /cm)	TOTAL PHOS. MEANS (ppb) EPI CORE	SURF GRAB	BOT. GRAB	PRO. GRAB	SECCHI DISK (m.) MIN.	MEAN	MAX.	N	CHLOROPHYLL A(ppb) MIN.	MEAN	MAX.	TROPHIC STATE INDICES EPI PHOS C	G	SEC	CHL
YEAR																			
1978	-	-	-	-	-	-	-	-	-	-	-		1.9	1.9	1.9	-	-	-	-
1988	-	6.80	12.0	-	-	-	-	-	1.3*	2.8*	3.0*	6	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	3.0*	3.0*	3.0*	6	-	-	-	-	-	-	-
1990	50	6.33	5.5	27	16	-	-	-	3.0*	3.1*	3.7*	5	4.5	4.5	4.5	-	-	-	-
1991	-	-	-	-	-	-	-	-	3.0	3.4*	3.9*	6	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	3.3	3.6*	3.7*	6	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	3.1	3.6*	3.9	6	-	-	-	-	-	-	-
1994	20	-	2.0	-	15	-	-	-	3.1	3.5*	3.8*	6	2.9	2.9	2.9	-	-	-	-
1995	-	-	-	-	-	-	-	-	2.5	3.5*	3.8*	6	-	-	-	-	-	-	-
1996	-	-	-	-	-	-	-	-	3.5*	3.7*	3.8*	6	-	-	-	-	-	-	-
1997	-	-	-	-	-	-	-	-	3.0	3.5*	3.6*	6	-	-	-	-	-	-	-
1998	-	-	-	-	-	-	-	-	3.2	3.5*	3.7*	5	-	-	-	-	-	-	-
1999	-	-	-	-	-	-	-	-	3.4	3.5*	3.7*	5	-	-	-	-	-	-	-
2000	32	-	5.0	30	23	-	-	-	3.2*	3.7*	3.8*	5	5.3	5.3	5.3	-	-	-	-
2001	-	-	-	-	-	-	-	-	3.3	3.6*	3.8	5	-	-	-	-	-	-	-

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YEAR																			
2002	-	-	-	-	-	-	-	-	3.2	3.6*	3.9*	5	-	-	-	-	-	-	-
2003	-	-	-	-	-	-	-	-	3.3*	3.6*	3.9*	5	-	-	-	-	-	-	-
2004	-	-	-	-	-	-	-	-	3.5*	3.7*	3.9*	5	-	-	-	-	-	-	-
2005	47	6.43	3.0	25	-	14	-	-	3.1	3.6*	3.9	5	-	-	-	-	-	-	-
2006	-	-	-	-	-	-	-	-	3.2	3.7*	3.9*	5	-	-	-	-	-	-	-
2007	-	-	-	-	-	-	-	-	3.1*	3.7*	4.0*	5	-	-	-	-	-	-	-
2008	50	6.54	3.4	24	27	-	-	-	1.5	3.3*	3.9*	5	25.0	25.0	25.0	-	-	-	-
2009	-	-	-	-	24	-	-	-	1.2	2.7	3.6	5	6.3	6.3	6.3	-	-	-	-
2010	-	-	-	-	23	-	-	-	1.1*	3.1*	4.0*	6	19.0	19.0	19.0	-	-	-	-
SUMMARY:	40	6.49	5.2	27	21	14	-	-	1.1*	3.4*	4.0*	23	1.9	9.3	25.0	-	-	-	-

LATE SUMMER TEMPERATURE / DISSOLVED OXYGEN PROFILES:

	SAMPLE DATE															
DEPTH	08/06/09		08/11/09		08/17/09		09/02/09		09/21/09		08/09/10		08/11/10		09/16/10	
m	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm	°C	ppm
0.0	26.5	8.9	24.5	8.9	28.8	8.6	22.9	7.5	19.8	8.3	24.2	6.5	25.2	6.0	19.7	8.2
1.0	25.5	8.8	24.3	8.7	28.2	8.5	22.8	7.5	19.1	8.3	23.7	6.7	25.0	5.9	19.6	8.2
2.0	24.4	8.1	24.1	8.3	24.6	6.9	22.3	7.4	18.0	8.1	23.6	6.4	24.1	5.8	19.5	8.0
3.0	22.2	5.2	22.0	5.7	22.0	2.9	21.9	7.3	17.7	7.9	23.2	6.5	23.7	5.3	18.9	7.8
4.0	21.3	3.6	-	-	21.6	2.2	21.9	7.3	17.6	7.9	23.1	6.4	23.4	4.6	18.8	7.4

WATER QUALITY SUMMARY

PARADISE (MUDDY) POND, DAMARISCOTTA
MIDAS: 5708, Sample Station # 1

The Maine Department of Environmental Protection (ME-DEP) and the Volunteer Lake Monitoring Program (VLMP) have collaborated in the collection of lake data to evaluate water quality, track algal blooms, and determine water quality trends. This dataset does not include bacteria, mercury, or nutrients other than phosphorus.

Water quality monitoring data for Paradise Pond have been collected since 1978. During this period, 6 years of basic chemical information was collected, in addition to 22 years of Secchi Disk Transparencies (SDT). In summary, the water quality of Paradise Pond is considered below average based on measures of SDT, total phosphorus (TP), and Chlorophyll-a (Chla). The potential for nuisance algal blooms on Paradise Pond is moderate to high.

Water Quality Measures: Paradise Pond is a colored lake (average color 40 SPU) with an average SDT of 3.5*m (11.5*ft). (The asterisk * indicates that at least some of the SDT readings hit the bottom of the pond. If the pond were deeper, the SDT readings would be greater.) Water column TP values for Paradise Pond are high, ranging from 15 - 27 parts per billion (ppb) with an average of 21 ppb. Chla values, range from 1.9 - 25.0 ppb with an average of 7.7 ppb.

Paradise Pond recorded algal blooms in 2008 and 2009. Continued monitoring will be necessary to determine if these blooms were just a response to seasonal conditions which were unusual those two years.

Recent dissolved oxygen (DO) profiles show no DO depletion in this warm water lake. It is too shallow to thermally stratify and therefore remains well mixed during the summer. The potential for phosphorus to leave the bottom sediments and become available to algae in the water column (internal loading) is moderate due to the resuspension of sediments from the wind disturbance.

See ME-DEP Explanation of Lake Water Quality Monitoring Report for measured variable explanations. Additional lake information can be found on the Internet at http://www.lakesofmaine.org/ and/or http://www.maine.gov/dep/blwq/lake.htm, or telephone the ME-DEP at 207-287-3901 or the VLMP at 207-783-7733.

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